

REMARKS/ARGUMENTS

Claims 1, 4, 6, 8, and 10 are pending in the present application, of which claims 1 and 6 are independent. Claims 1, 4, 6, 8, and 10 are amended. By way of this Amendment, claims 2-3, 5, 7, 9, and 11-16 are canceled without prejudice to or disclaimer of the subject matter previously recited therein.

The courtesies extended to Applicant's representatives by Examiner Su during the interview held on June 16, 2009, are appreciated. The reasons presenting at the interview for warranting favorable reconsideration are detailed in this response, which constitutes Applicant's record of the interview.

REJECTIONS UNDER 35 U.S.C. § 102

In section 6 on page 3, the Office Action rejects claims 1, 4, 6, 10, and 14-16 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent Application Pub. No. 2004/0039908 to Rose et al. (hereinafter, "Rose"). Applicant respectfully traverses these rejections.

Independent claim 1 recites,

A data processing device, comprising an electronic memory component,
the data processing device comprising:
an encryption block, said encryption block receiving an address
comprised of a series of parameters a_0, \dots, a_n and applying an
encryption method on at least one parameter to produce an
encrypted series of parameters a'_0, \dots, a'_n according to the series:

$$a'_j = \begin{cases} f_{n-j+1}(a_j) & j = n \\ f_{n-j+1}(a_j + f_{n-j}(a_{j+1})) & j = 0, \dots, n-1 \end{cases}$$

wherein encryption function f_{j+1} and encryption function f_j , are distinct for all values of j , and

for at least a first parameter in said series of parameters, $a'_x \neq a_x$ and for at least a second parameter in said series of parameters, $a'_y = a_y$.

Independent claim 6 contains a similar recitation. The subject matter finds support in, for example, lines 9-11 and 19-20 of page 3, lines 26-27 of page 4, and lines 3-4 of page 5 of the clean version of the amended specification dated August 14, 2008. In particular, the series added to the claims finds support in Figure 1.

As described in the specification, this subject matter relates to the partial encryption of an address, wherein the encryption method uses distinct encryption functions, as illustrated in Fig. 1, on each parameter. See p. 6, ln. 15-18 (defining n different functions). In some cases, the output of a particular function does not encrypt a parameter, so that for a given unencrypted parameter a_y , its encrypted address is unchanged, meaning $a'_y = a_y$. See p. 3, ln. 19-20 ("Not all stages have to be fully performed, i.e., some functions f_i may directly reproduce the relevant address bit: $a'=a$.").

In contrast, Rose fails to disclose, teach, or suggest a device wherein "encrypted function f_{j+1} and encryption function f_j , are distinct for all values of j , and for at least a first parameter in said series of parameters, $a'_x \neq a_x$ and for at least a second parameter in said series of parameters, $a'_y = a_y$," as recited in claim 1 and similarly recited in claim 6. Rose discloses a cipher block chaining method, wherein plaintext blocks are XORed with previous ciphertext before an encryption function to make a recursive dependence for each encrypted partial block. See, e.g.,

[0010], but fails to disclose a series of encrypted parameters according to the relationships recited in claims 1 and 6.

Accordingly, Applicant respectfully submits that claims 1 and 6 are allowable over Rose. Claims 4 and 10 depend on claim 1 and therefore are allowable at least based upon these dependencies. Claims 14-16 are canceled. Accordingly, Applicant respectfully requests that the rejection of claims 1, 4, 6, 10, and 14-16 under 35 U.S.C. 102(b) be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 103

In section 7 on page 5, the Office Action rejects claims 2, 3, 7, and 11-13 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Rose in view of European Patent Application No. EP 0908810 A2 to Candelore et al. (hereinafter "Candelore"). In section 9 on page 8, the Office Action rejects claim 8 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Rose in view of Candelore and further in view of U.S. Patent Application No. 2002/0048372 to Toh et al. (hereinafter "Toh"). In section 10 on page 9, the Office Action rejects claim 9 as allegedly being unpatentable over Rose in view of U.S. Application No. 2003/0026423 to Unger et al. (hereinafter "Unger") Applicant respectfully traverses these rejections.

1. EP 0908810 A2 to Candelore et al.

Candelore discloses encrypting an external storage device by using triple DES encryption and information being processed using Cipher Block Chaining with

the use of three keys: a first key for high-order address lines, a second key for low-order address lines, with the third key being unit-dependent. Candelore therefore, fails to disclose, teach, or suggest a data processing device that only partially encrypts a parameter with a given encryption method. Candelore describes use of 3-key encryption method on the entirety of the data inputted. See paragraphs [0140]-[0141]. Candelore therefore does not overcome the deficiencies of Rose above in connection with independent claims 1 and 6.

The limitations of claims 2, 11, and 14 are incorporated in independent claim 1, while the limitations of claim 7, 12, and 15 are incorporated in independent claim 6. Claims 2, 3, 7, and 11-13 are therefore canceled. Claim 10 is now dependent upon claim 1. Accordingly, Applicant respectfully requests that the rejection of claims 2, 3, 7, and 11-13 under 35 U.S.C. § 103(a) be withdrawn.

2. U.S. Patent Application No. 2002/0048372 to Toh et al.

The Toh specification also fails to remedy the deficiencies in Rose described above in connection with the rejection of independent claims 1 and 6. Claim 8 is therefore allowable based at least on its dependency from claim 6. Accordingly, Applicant respectfully requests that the rejection of claim 8 under 35 U.S.C. § 103(a) be withdrawn and the claim be allowed.

3. U.S. Patent Application No. 2003/0026423 to Unger et al.

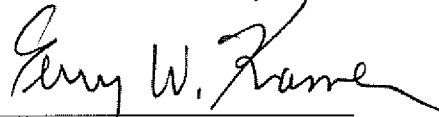
Unger discloses a partial encryption method wherein packets selected for encryption “are duplicated and encrypted under two distinct encryption methods.”

See ¶ [0103]. In contrast, the recited subject matter uses a multitude of distinct encryption functions on each of the series of parameters in a recursive chain, with the output of some functions being a non-encrypted parameter. Unger therefore fails to overcome the deficiencies in Rose described above in connection with the rejection of claims 1 and 6. The limitation of claim 9 is incorporated in independent claims 1 and 6. Claim 9 is therefore canceled. Accordingly, Applicant respectfully requests that the rejection of claim 9 under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

In view of the remarks above, Applicant believes that each of the rejections/objections has been overcome and the application is in condition for allowance. In the event that the fees submitted prove to be insufficient in connection with the filing of this paper, please charge our Deposit Account Number 50-0578 and please credit any excess fees to such Deposit Account. Should there be any remaining issues that could be readily addressed over the telephone; the Examiner is asked to contact the agent overseeing the application file, David Cordeiro, of NXP Corporation at (408) 474-9057.

Respectfully submitted,
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